

CLAIMS

1. A method of producing user-selected paint composition, the method comprising:
providing an apparatus for producing a paint composition;
prompting a user to select through the apparatus whether the paint to be produced will have characteristics of either interior or exterior paint;
prompting the user to select through the apparatus a paint sheen;
prompting the user to select through the apparatus a paint color type;
prompting the user to place an empty can or bucket into the apparatus;
automatically depositing at least two premixed aqueous compositions into the can or bucket, wherein none of the at least two premixed aqueous compositions is paint prior to being deposited into the can or bucket; and
agitating the can or bucket to mix the at least two premixed aqueous compositions to produce the paint composition having the selected sheen, the selected color type and being well suited for either interior or exterior use as input by the user.
2. The method of claim 1, further comprising prompting the user to select through the apparatus a paint quality, wherein the paint composition is produced based upon the selected quality.
3. The method of claim 2, wherein automatically depositing at least two premixed aqueous compositions into the can or bucket comprises depositing at least a premixed pigment composition into the can or bucket first and then adding to the premixed pigment composition at least one of a premixed dispersant thickening dilutant composition, a premixed low resin composition and a premixed high resin composition to produce the aqueous paint composition from the premixed solutions at a location for selling paint.

Claim 4. A method of producing an aqueous paint composition, the method comprising:

premixing a pigment composition as an aqueous solution having a pigment, water, a clay and silica mixture, a viscosity controlling agent and a phosphate-based dispersant;

premixing a dispersant thickening dilutant composition as an aqueous solution having water as its predominant component, a phosphate-based dispersant and a thickener;

premixing a low resin composition as an aqueous solution having water, a flattening agent, a phosphate-based dispersant, a thickener and resin in a first amount between approximately 10%-50% by weight;

premixing a high resin composition as an aqueous solution having water, a phosphate-based dispersant, a thickener and resin in a second amount greater than approximately 80% by weight;

wherein at least one of the premixed compositions further comprises a coalescent;

transferring the premixed aqueous solutions to a location for selling paint; and

mixing a portion of the pigment composition with a portion of at least one of the dispersant thickening dilutant composition, the low resin composition and the high resin composition at the location for selling paint to produce the aqueous paint composition from the premixed solutions.

Claim 5. The method of claim 4, wherein the pigment composition comprises approximately 65% or less of titanium dioxide.

Claim 6. The method of claim 5, wherein the pigment composition comprises between approximately 40 to 50 percent titanium dioxide by weight.

Claim 7. The method of claim 6, wherein the pigment composition comprises about 25 percent water by weight, about 15 percent by weight of the clay and silica mixture, about 10 percent viscosity controlling agent by weight, and about 5 percent or less by weight of a combination of the dispersant and a thickener.

Claim 8. The method of claim 4, wherein the dispersant thickening dilutant composition comprises about 93 percent water by weight, about 1 percent or less by weight of a combination of the dispersant and thickener and about 4 to 5 percent coalescent by weight.

Claim 9. The method of claim 4, wherein the high resin composition comprises about 15 percent water by weight and about 2 percent coalescent by weight.

Claim 10. The method of claim 4, wherein the low resin composition comprises about 50 percent resin by weight.

Claim 11. The method of claim 10, wherein the low resin composition comprises about 28 percent water by weight, about 7 percent flattening agent by weight, about 11 percent limestone by weight, and about 3.5 percent calcined clay by weight.

Claim 12. The method of claim 4, wherein the thickener used for at least one of the thickening dilutant composition, the low resin composition and the high resin composition is a cellulosic thickener.

Claim 13. A method of producing an aqueous paint composition, the method comprising:

storing, at a location for selling paint, a premixed pigment composition as an aqueous solution having a pigment, water, a clay and silica mixture, a viscosity controlling agent and a phosphate-based dispersant;

storing, at the location for selling paint, a premixed dispersant thickening dilutant composition as an aqueous solution having water as its predominant component, a phosphate-based dispersant and a thickener;

storing, at the location for selling paint, a premixed low resin composition as an aqueous solution having water, a flattening agent, a phosphate-based dispersant, a thickener and resin in a first amount between approximately 10%-50% by weight;

storing, at the location for selling paint, a premixed high resin composition as an aqueous solution having water, a phosphate-based dispersant, a thickener and resin in a second amount greater than approximately 80% by weight;

wherein at least one of the premixed composition further comprising a coalescent; and

mixing, at the location for selling paint, a portion of the premixed pigment composition with a portion of at least one of the premixed dispersant thickening dilutant composition, the premixed low resin composition and the premixed high resin composition to produce the aqueous paint composition from the premixed solutions.

Claim 14. The method of claim 13, further comprising storing the stored premixed aqueous solutions for at least one day without agitation or settling of components.

Claim 15. The method of claim 13, further comprising maintaining the stored premixed aqueous solutions in solution for at least one week without agitation.

Claim 16. The method of claim 13, wherein the thickener used for at least one of the thickening dilutant composition, the low resin composition and the high resin composition is a cellulostic thickener.

Claim 17. The method of claim 13, wherein the pigment composition comprises between approximately 40 to 50 percent titanium dioxide by weight, about 25 percent water by weight, about 15 percent by weight of the clay and silica mixture, about 10 percent viscosity controlling agent by weight, and about 5 percent or less by weight of a combination of the dispersant and thickener.

Claim 18. The method of claim 13, wherein the dispersant thickening dilutant composition comprises about 93 percent water by weight, about 1 percent or less by weight of a combination of the dispersant and thickener and about 4 to 5 percent coalescent by weight.

Claim 19. The method of claim 13, wherein the high resin composition comprises about 15 percent water by weight and about 2 percent coalescent by weight.

Claim 20. The method of claim 19, wherein the low resin composition comprises about 50 percent resin by weight, about 28 percent water by weight, about 7 percent flattening agent by weight, about 11 percent limestone by weight, and about 3.5 percent calcined clay by weight.

Claim 21. A method of producing an aqueous paint composition comprising:

- storing a premixed pigment composition as an aqueous solution having a pigment, water, a dispersant and a thickener;
- storing a premixed dispersant thickening dilutant composition as an aqueous solution having water as its predominant component, a dispersant and a thickener;
- storing a premixed low resin composition as an aqueous solution having water, a flattening agent, a dispersant, a thickener and a first amount of resin;
- storing a premixed high resin composition as an aqueous solution having water, a dispersant, a thickener and a second amount of resin greater than the first amount;
- wherein at least one of the premixed compositions further having a coalescent; and
- mixing a portion of the premixed pigment composition with a portion of at least one of the premixed dispersant thickening dilutant composition, the premixed low resin composition and the premixed high resin composition to produce the aqueous paint composition from the premixed solutions.

Claim 22. The method of claim 21, further comprising:

- selecting a plurality of paint characteristics for the aqueous paint composition prior to mixing;
- determining an amount of each premixed solution to combine to produce the aqueous paint;
- and
- combining the determined amounts of each premixed solution in a container prior to mixing.

Claim 23. The method of claim 22, further comprising:

measuring the determined amount of each premixed aqueous solution prior to mixing and transferring the determined amount of each premixed aqueous solution prior to mixing.

Claim 24. The method of claim 23, wherein transferring the determined amount of each premixed aqueous solution comprises separately pumping each premixed composition.

Claim 25. The method of claim 21, wherein measuring the determined amount of each premixed composition comprises measuring a weight of the receiving reservoir.

Claim 26. The method of claim 25, wherein the determined amount of each premixed aqueous solution is transferred to the container during separate time intervals and the determined amount is measured by measuring a weight of the container by recalibrating a weight scale associated with the container each time a different premixed aqueous solution is transferred to the container.

Claim 27. The method of claim 21, wherein determining the amount of each premixed solution to combine comprises identifying a predetermined amount of premixed composition needed to produce a paint composition having each of a selected sheen, a selected color type, a selected quality, a selected quantity, and a suitability for at least one of interior and exterior use.

Claim 28. A method of producing an aqueous paint composition, the method comprising:

storing a premixed pigment composition as an aqueous solution having a pigment, water, a clay and silica mixture, a viscosity controlling agent and a phosphate-based dispersant;

storing a premixed dispersant thickening dilutant composition as an aqueous solution having water as its predominant component, a phosphate-based dispersant and a thickener;

storing a premixed low resin composition as an aqueous solution having water, a flattening agent, a phosphate-based dispersant, a thickener and resin in a first amount between approximately 10%-50% by weight;

storing a premixed high resin composition as an aqueous solution having water, a phosphate-based dispersant, a thickener and resin in a second amount greater than approximately 80% by weight; and

mixing the premixed pigment composition with at least one of the premixed dispersant thickening dilutant composition, the premixed low resin composition and the premixed high resin composition to produce the aqueous paint composition from the premixed solutions.

Claim 29. A method of producing an aqueous paint composition comprising:

storing a premixed pigment composition as an aqueous solution having a pigment, water, a dispersant and a thickener;

storing at least one of:

- a premixed dispersant thickening dilutant composition as an aqueous solution having water as its predominant component, a dispersant and a thickener;
- a premixed low resin composition as an aqueous solution having water, a flattening agent, a dispersant, a thickener and a first amount of resin;
- a premixed high resin composition as an aqueous solution having water, a dispersant, a thickener and a second amount of resin greater than the first amount;

wherein at least one of the premixed dispersant thickening dilutant composition, the premixed low resin composition and the premixed high resin composition further includes a coalescent;

transferring the stored premixed aqueous solutions to a location for selling paint;

receiving a paint characteristics selection from a customer at the location for selling paint;

and

mixing, at the location for selling paint and in order to produce paint having the customer's selected paint characteristics, a portion of the premixed pigment composition with a portion of the at least one of the premixed dispersant thickening dilutant composition, the premixed low resin composition and the premixed high resin composition to produce the aqueous paint composition from the premixed aqueous solutions.
